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Citation for published version:
Jones, C, Foley, S & Golombok, S 2021, 'Parenting and child adjustment in families with primary caregiver fathers', *Journal of Family Psychology*. https://doi.org/10.1037/fam0000915

Digital Object Identifier (DOI):
10.1037/fam0000915

Link:
Link to publication record in Edinburgh Research Explorer

Document Version:
Peer reviewed version

Published In:
Journal of Family Psychology

Publisher Rights Statement:
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Download date: 04. May. 2023

Parenting and Child Adjustment in Families with Primary Caregiver Fathers

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Submitted 9/12/2020

Accepted 01/08/2021

Abstract

Although greater attention has been paid to fathers' involvement in caregiving in recent decades, there is limited understanding of families with primary caregiver fathers, particularly in terms of parental psychological health and parenting quality. Findings are presented from a study of 41 primary caregiver father, 45 primary caregiver mother and 41 dual-earner families in the UK with children aged 3-6 years. Standardized interviews and questionnaires on parental psychological wellbeing, parenting and child adjustment were completed by fathers, mothers, and teachers. No differences were found between family types on any of the measures. However, multi-level modelling showed that increased parental stress was associated with greater child difficulties across all families. Overall, the findings revealed that the primary caregiver fathers were well-adjusted to their parenting role and showed no differences in quality of parenting to primary caregiver mothers. The study findings challenge the assumption that women are more suited to primary caregiving than men. Policy implications for fathers and their families are discussed.

Keywords: primary caregiver fathers, family functioning, parental psychological health, parenting quality, child adjustment.

Parenting and Child Adjustment in Families with Primary Caregiver Fathers

Men are now more involved in childcare than ever, with the current generation of fathers more committed to caring for their children compared to previous ones (Schoppe-Sullivan & Fagan, 2020). In addition, depictions of fatherhood have afforded greater focus to the nurturing aspects of fathering (Dermott, 2008). Although mothers still take on the primary caregiver role in the majority of families in the UK, with dual-earner households the most common arrangement and 93% of fathers in paid employment (Office for National Statistics, 2019), an increasing number of families have primary caregiver fathers with mothers as the primary earners (Connolly et al., 2014). These fathers have also been referred to as 'stay-at-home fathers' (Soloman, 2014), hereby referred to as primary caregiver fathers.

In recent years, studies have been conducted on primary caregiver fathers in different family forms. In particular, a growing body of research has examined primary caregiver fathers in gay father families: comprising studies of adoptive families (Farr & Patterson, 2013; Goldberg & Smith, 2013; Golombok et al., 2014; McConnachie et al., 2020), and families formed through surrogacy (Golombok et al., 2018; Van Rijn-Van Gelderen et al., 2018). These studies have found both the parents and children to show positive adjustment. A question that remains, however, is whether the same positive outcomes are true of primary caregiver fathers in heterosexual parent families. Men who adopt the primary caregiver role in families with heterosexual parents challenge conventional ideas of fathering and masculinity (Mattila, 2020). Taking on this non-traditional parenting role may have important implications for paternal wellbeing, parenting, and child adjustment.

Family Systems Theory (Minuchin, 1985), which conceptualizes family members as interdependent, is a particularly useful framework for studying associations between parent and child adjustment. From this perspective, it is important to study couple relationship

quality, as well as other aspects of family functioning, including parental psychological health, as these factors can impact other family members' adjustment. There is a large body of literature showing that parental mental health has an important and long-lasting impact on the functioning of the family unit. For instance, it is well documented that parental depression can negatively impact child outcomes (Goodman et al., 2011). In terms of parent-specific difficulties, parenting stress, experienced through negative feelings associated with the challenges of parenting (Deater-Deckard, 1998), can adversely influence child outcomes. Given this, it is important to study parenting stress both in terms of comparisons between different family types, and variation within families (Deater-Deckard, 1998). Thus far, existing research on primary caregiver fathers has explored the fathers' experiences of their role. However, there is a need for research which understands these experiences in the context of the whole family system.

Qualitative research in the US and Canada exploring stay-at-home fathers' experiences shows that they face some gender-specific challenges (Zimmerman, 2000). In particular, these fathers often report feeling socially isolated and experience stigma, especially in terms of integrating into mother-dominated spaces such as playgroups and playgrounds (Ammari & Schoenebeck, 2016; Lee & Lee, 2018; Robertson & Verschelden, 1993; Rochlen et al., 2010; Snitker, 2018; Zimmerman, 2000). Stay-at-home fathers also receive lower social support than other men (Rochlen et al., 2008a). In addition, when comparing fathers and mothers in the stay-at-home parent role, Zimmerman (2000) found that the stay-at-home fathers experienced greater levels of stigma and isolation than women in the same position. Another area of difficulty these fathers face is struggling with not conforming to the traditional breadwinner role (Doucet, 2004; Solomon, 2014). Yet, little attention has been given to how the primary caregiving role, and its possible associated

stigma and social isolation, may affect the father's wellbeing, and the psychological consequences for all members of the family.

It has been suggested that children benefit from increased paternal involvement, but it is not simply the level of involvement that matters for developmental outcomes, but the types of parenting behaviors that fathers may demonstrate (Palkovitz, 2019). Often research has focused on the playful interactions fathers have with their children and how these can differ from mother-child interactions, for example, by documenting the beneficial effects of the stimulating nature of fathers' play on child adjustment (Grossmann et al., 2002; Lewis & Lamb, 2003). However, more recently, there has been an acknowledgement of the greater importance of family functioning over family structure - including parental gender - for child outcomes (Golombok, 2015; Lamb, 2012). Further, there is a growing body of evidence to suggest that fathers are much more similar to mothers than previously thought. In a review of the fathering literature, Fagan et al. (2014) demonstrated that the concepts of fathering and mothering are very similar, that fathers' and mothers' behavior with their children is closely comparable, and that fathers and mothers mostly influence their children's development in analogous ways.

Research on primary caregiver fathers has rarely compared their parenting to that of mothers in the primary caregiver role. However, qualitative studies of primary caregiving men, particularly the body of research on stay-at-home fathers in the US, have provided insight into their parenting approaches. An early study found that stay-at-home fathers saw their role as an opportunity to foster a close bond with their children and play an active part in their development (Robertson & Verschelden, 1993). Stay-at-home fathers described their experiences in ways that illustrate a nurturing approach (Solomon, 2014), which digresses from traditional depictions of masculinity (Elliott, 2015). However, these fathers also reported the challenges they faced in their parenting role (Sniker, 2018), given that it is still

relatively rare for fathers to take on the larger proportion of caregiving and they are generally not recognized for it by society.

Turning to parent-child interaction, Lewis et al. (2009) found that in a sample of fathers with 12-month olds, primary caregiver fathers showed higher emotional tone and their infants showed more positive mood compared to secondary caregiver fathers. This is in contrast to the findings of studies of primary caregiver fathers conducted in the 1970s and 1980s. One small observational study of twelve primary caregiver fathers, twelve primary caregiver mothers and twelve secondary caregiver fathers showed that highly involved fathers had a more playful interaction style than mothers, yet both these types of parents smiled more and imitated their infant more than less involved fathers (Field, 1978). Other observational studies found that primary caregiver mothers were more affectionate with their 3-month-old infants than primary caregiver fathers (Lamb et al., 1982) and with their infants aged 8-12-months (Hwang, 1986). Overall, the mixed findings from these studies, and the dearth of recent quantitative data, shows that more research needs to be conducted to establish whether there are differences between primary caregiver fathers and mothers, especially when their children are beyond infancy and the parents have been in their role for a longer period.

The Current Study

As few studies of primary caregiver fathers have investigated family functioning, the current study aimed to address this gap by examining whether primary caregiver father families differed from either primary caregiver mother families, or dual-earner families, regarding; (a) parental psychological health and relationship quality; (b) quality of parenting; and (c) child adjustment. By studying primary caregiver father families, in comparison to families whereby the mother takes on the larger share of caregiving (primary caregiver

mother families and mothers in dual-earner families), this research allowed for an investigation of the impact of parent gender on parenting and other indicators of family functioning, whilst controlling for the level of parental involvement. The current study focused on families with young children (aged 3 – 6 years) due to the high burden of childcare at that age, but also to avoid any physical dependence (i.e. breastfeeding) that might be a potential confound during infancy.

The present study was grounded in Family Systems Theory (Cox & Paley, 2003; Minuchin, 1985). Thus, it examined parents in the context of the family unit and was informed by research demonstrating the importance of parental psychological health and marital quality on child adjustment. As such, both the design and analysis of the research took account of the multiple influences each family member can exert on the adjustment of any other member of the family.

Due to the large body of literature indicating that fathers and mothers are much more similar in parenting than they are different (Fagan et al., 2014), it was expected that there would be no differences in parenting quality between primary caregiver fathers and primary caregiver or dual-earner mothers. Similarly, the adjustment of children with primary caregiver fathers was predicted not to differ from the adjustment of children with primary caregiver mothers or in dual-earner households. However, in light of the literature showing that fathers in primary caregiver roles often experience stigma and social isolation (Ammari & Schoenebeck, 2016; Robertson & Verschelden, 1993; Snitker, 2018; Zimmerman, 2000), it was expected that these fathers would report more difficulties, such as lower social support, than mothers in the same role.

In addition, the study set out to explore whether aspects of family functioning, such as quality of parenting, parental wellbeing and marital quality, influenced child adjustment.

Through the lens of Family Systems Theory, which posits that individuals should be studied within the context of their family unit (Cox & Paley, 2003), it was hypothesized that children's adjustment in all family types would be influenced by family processes, such as parental wellbeing and the quality of parent-child relationships.

Method

Participants

The sample comprised 41 primary caregiver father families and comparison groups of 45 primary caregiver mother families and 41 dual-earner families, all with children aged between 3 and 6 years (*M*age = 4.68). Data were collected between 2017 and 2019. The families were recruited through preschools, schools, playgroups, parenting groups on social media and electronic mailing lists, and by word-of-mouth.

The inclusion criteria for primary caregiver fathers and mothers were as follows: they were the primary caregiver for their children and had been so for at least six months; they had a child aged between 3 and 6 years; their partner was the primary wage earner and worked at least four days per week or equivalent; and if the primary caregiver parent was employed, then they were in part-time or flexible work arranged around their caregiving commitments, which often included working from home. Hence, these parents were seen to spend more time directly caregiving per week than engaged in paid work. The majority of the primary caregiver parents were not engaged in paid employment (69%), though significantly more fathers were employed in part-time work than mothers, $\chi^2(1) = 6.94$, $p = .01$. In contrast, for the dual-earner families, all with a child aged 3 to 6 years-old, each parent was in paid work for at least half of the standard working week and many were in full-time paid employment. When asked, dual-earner families reported the mother spent, on average, more time caregiving than fathers in these families.

The characteristics of the sample are shown in Table 1. There was a difference between family types in fathers' age, $F(2,124) = 6.96$, $p < .001$, $\eta p^2 = .10$, and mothers' age, $F(2, 124) = 4.11$, $p = .02$, $\eta p^2 = .06$. Primary caregiver fathers ($M = 41.95$, $SD = 6.21$) were significantly older than both secondary caregiver fathers ($M = 37.95$, $SD = 4.83$) and dual-earner fathers ($M = 39.33$, $SD = 3.75$). Secondary caregiver mothers ($M = 38.43$, $SD = 4.16$) were significantly older than primary caregiver mothers ($M = 36.20$, $SD = 3.44$) but did not differ from dual-earner mothers ($M = 37.68$, $SD = 3.43$). Children's age did not differ significantly between the family types.

All couples were in a heterosexual relationship and were either married or cohabiting. There were no differences in the proportion of girls and boys in the different family types (60% girls), the number of siblings in the family, mothers' ethnicity and fathers' ethnicity, or mothers' and fathers' educational attainment. Most families (67%) had two children. The majority of parents in all family types had a higher education degree and reported few financial difficulties.

Procedure

Ethical approval for the study was granted by the Cambridge Psychology Research Ethics Committee. The research visits to family homes were conducted by researchers who were trained in administering and coding the interviews by a senior researcher with extensive experience of interviewing parents. The visits generally lasted two to three hours. At the beginning of the visit, fathers and mothers read the study information sheet and provided written informed consent for their participation. Each parent was interviewed in turn, alone, and the interviews were audio-recorded. Questionnaire booklets were given to the parents at the visit and were filled out and sent back to the primary researcher after the visit. All parents were asked to complete the questionnaires alone and to not discuss their answers with their partner. Parents were asked for their consent for the researcher to contact the child's

preschool or school teacher to ask them to complete a questionnaire to provide an independent account of the child's behavior at school. An information sheet was sent to the teachers, who provided written informed consent before completing the questionnaire.

Due to the length of the research visits and the families' availability, not all of the measures were completed by all family members. Specifically, 100% of the primary caregiver interviews and 95% of secondary caregiver interviews were conducted, and questionnaires were completed by 97% of primary caregivers, 95% of secondary caregivers and 77% of teachers.

Measures

Parent Mental Health, Relationship Quality and Coparenting

Depression. Parents were asked to complete the 10-item Edinburgh Depression Scale (EDS: Thorpe, 1993) to assess their symptoms of depression, based on experiences of the previous seven days. A total score is produced ranging from 0 to 30, whereby higher scores represent higher levels of depression. The EDS has been validated on a large community sample in the UK and was found to be sensitive regarding the detection of clinical depression (Murray & Carothers, 1990). For the present sample, there was good internal consistency: Cronbach's alpha for mothers' scores was .86 and for fathers' scores was .76.

Anxiety. Parents completed the 20-item Trait Anxiety Inventory (TAI: Spielberger, et al., 1983). The TAI was designed as a brief but reliable measure of self-reported anxiety and shows good discrimination between clinical and non-clinical populations (Spielberger et al., 1983). A total score of anxiety is computed (range 20 to 80) and higher scores indicate greater levels of anxiety. For the present study, the TAI showed high internal consistency; Cronbach's alpha for the mothers' ratings was .92 and for the fathers' ratings was .91. Due to the high degree of correlation between scores on the EDS and the TAI for mothers (r = .74, p

< .001) and for fathers (r = .75, p < .001), an aggregate score of Parent Mental Health was created.

Parenting Stress. Parents completed the 36-item Parenting Stress Index Short-Form (PSI: Abidin, 1995). The items cover three aspects of parenting stress; Parent Distress, Parent-Child Dysfunctional Interaction and Difficult Child, with a total score generated (range 36 to 180). Higher scores reflect higher levels of parenting stress and total scores over 90 indicate clinical levels of parenting stress. For the present study, the Cronbach's alpha for mothers' scores was .89 and for fathers' scores was .89.

Social Support. The Multidimensional Scale of Perceived Social Support (MSPSS: Zimet et al., 1988) was administered to mothers and fathers. Parents rated 12 items with the questions covering support from family, friends and a significant other. Scores range from 1 to 7, with scores between 1 and 2.9 representing low social support, scores between 3 and 5 regarded as moderate support, and scores of 5.1 and above classified as high social support (Zimet et al., 1988). For the present study, the Cronbach's alpha for mothers' ratings was .94 and for fathers' ratings was .92.

Martial Quality. The Golombok Rust Inventory of Marital State (GRIMS: Rust et al., 1990) was used to assess the quality of the relationship between parents. The GRIMS is a 28-item questionnaire that can be administered to both married and cohabiting couples. Higher scores represent greater marital difficulties, and scores above 34 indicate martial dissatisfaction. The GRIMS has high reliability, and good content and face validity (Rust et al., 1986; Rust et al., 1990). For the present study, the Cronbach's alpha for mothers' scores was .91, and for fathers' scores was .89, showing good internal consistency.

Coparenting. Parents completed the 35-item Coparenting Relationship Scale (CRS: Feinberg et al., 2012), which assesses parenting support, undermining behavior, conflict and division of labor. A total score is calculated from the mean of the items (range 0 to 6), with

higher scores representing more positive coparenting. For the present study, Cronbach's alpha was .92 for mothers' ratings and for fathers' ratings the Cronbach's alpha was .90.

Parenting Quality.

Parent Interview. Each parent was interviewed separately using an adaptation of an interview designed to assess quality of parenting (Quinton & Rutter, 1988), which has been used successfully in previous studies of modern family forms (Golombok et al., 2014; McConnachie et al., 2020). The interview has been validated against observations of parent-child relationships and a high level of reliability between the two measures was established (Quinton & Rutter, 1988). The interviewer uses flexible questioning in order to elicit sufficient information from the parent to rate their responses according to a standardized coding manual. The interview questions were designed to allow for an in-depth understanding of the parent-child relationship, the child's behaviors and emotions and the parent's response to them. The following variables were coded: (a) *expressed warmth* from 0 (*no warmth*) to 6 (*especially high warmth*) which captures a parent's tone of voice, facial expressions and gestures toward their child during their descriptions and their sympathy toward their child; (b) *emotional under-involvement* from 0 (*little or none*) to 3 (*detached / dismissive*) assessing whether the parent sees their child as an individual, is aware of the child's needs and desires, and balances these needs and desires with those of other family members; (c) *quality of interaction* from 0 (*very poor*) to 4 (*very good*) which took into account the parent-child relationship as a whole, such as how much the dyad enjoys spending time together, expresses affection and engages in shared activities; (d) *sensitive responding* from 0 (*none*) to 4 (*very sensitive responding*) measuring how the parent responds to their child, particularly when the child seeks parental help or is experiencing difficulties; (e) *frequency of parent-child conflict* from 0 (*never/ rarely*) to 5 (*a few times daily*) which measured how often the parent and child had an argument; (f) *resolution of parent-child*

conflict from 0 (*full resolution*) to 2 (*no resolution*) which assessed whether arguments had a definite end point or whether they were ongoing. Inter-rater reliability was established by two coders. The inter-rater reliabilities (intra-class correlation coefficients) were as follows: warmth .79, emotional under-involvement .59, quality of interaction .66, sensitive responding .85, frequency of conflict .97, resolution of conflict .96,

Parental Acceptance and Rejection. Each parent completed the 24-item short form Parental Acceptance Rejection Questionnaire (PARQ: Rohner, 2001) to assess the frequency of positive and negative parenting behaviors toward their child across four subscales; Warmth, Hostility and Aggression, Indifference and Neglect, and Undifferentiated Rejection. A total score is obtained with higher scores indicating higher rejection and lower acceptance (range 24 – 96). For the present study, the Cronbach's alpha for mothers' ratings was .82 and the Cronbach's alpha for fathers' ratings was .83, demonstrating good internal consistency.

Child Adjustment.

Children's behavioral and emotional adjustment was measured by the Strengths and Difficulties Questionnaire (SDQ: Goodman, 2001), which was administered to each parent and the child's preschool or school teacher to provide a multi-informant assessment of child adjustment. A total score is calculated, with higher scores indicating greater problems. The cut-off point for clinical problems is 17 for parent-rated difficulties and 16 for teacher-rated difficulties. A review comprising 48 studies of over 130,000 children has demonstrated the reliability and validity of this measure (Stone et al., 2010). For the present sample, internal consistency was good (mother, Cronbach's alpha .73; father, Cronbach's alpha .76; and teacher, Cronbach's alpha .80). Given mothers' and fathers' scores for total difficulties were highly correlated, $r = .55$, $p < .001$, an aggregate parent score was created.

Results

Analysis Plan

Firstly, Pearson's correlations were carried out between father's and mother's age and the dependent variables, including parental wellbeing, parenting, and child adjustment. Although fathers' and mothers' ages differed between the family types, neither of these variables were significantly correlated with the dependent variables, so they were not entered into the analyses as covariates.

For the variables relating to parental mental health, comparisons between the three types of primary caregiver parents (primary caregiver fathers, primary caregiver mothers and dual-earner mothers) were conducted using a multivariate analysis of variance (MANOVA). The dependent variables were the total scores for depression, anxiety and parenting stress. Where a significant group difference was found, a one-way analysis of variance (ANOVA) was carried out on each of the individual variables, with the following contrasts: (a) primary caregiver fathers versus primary caregiver mothers, to establish whether parent gender influenced the outcome whilst controlling for the level of parental involvement, and (b) primary caregiver fathers versus dual-earner mothers, to compare primary caregiver fathers to the most common type of primary caregiver parent in the UK. For the additional contrasts, a Bonferroni correction was applied to the alpha level. To assess differences between the primary caregivers regarding marital quality, social support and coparenting, ANOVAs were carried out individually on each variable, with additional contrasts if any significant differences were found. According to Cohen (1992), to detect a medium size difference when running an ANOVA with three groups at $\alpha = .05$, group sizes of 52 are needed, and group sizes of 21 are needed to detect large differences. Hence, the group sizes of around 40 in each family type for the present study indicate that the sample size is sufficient to identify large

differences between the three family types but does not have enough power to detect smaller differences.

For the measures relating to parenting quality from the interview and questionnaires, Confirmatory Factor Analysis (CFA) was used to explore the latent factor structure of these variables, to establish whether these measures reflected one underlying parenting construct. To test measurement invariance across all fathers and mothers, we used multiple-group CFA, which involves building a series of model constraints and comparing the change in model fit in these nested models (Brown, 2015). We evaluated model fit using three primary criteria: Comparative Fit Index (CFI) > 0.90, Tucker Lewis Index (TLI) > 0.90, Root Mean Square Error of Approximation (RMSEA) < 0.08 (Brown, 2015).

CFA was run in M*plus* Version 8 (Muthén & Muthén, 2012), separately for fathers and mothers. Informed by theory, and a subsequent inspection of the correlation matrix (see Table 3), a one-factor model was specified in which total scores for warmth, involvement (the reverse of under-involvement), quality of interaction, sensitive responding, and acceptance (as measured by the PARQ, with scores reversed so that higher scores indicated greater acceptance) loaded onto a single latent-factor of 'Quality of Parenting'. This baseline model suggested configural invariance, that is, the same factor structure was constant between fathers and mothers, RMSEA = 0.05, CFI = 0.95 and TLI = 0.93. The average factor loading for individual items was 0.58 and ranged between 0.40 and 0.82, with higher scores reflecting a higher quality of parenting.

Subsequently, in line with the procedure outlined by Geiser (2013) and Brown (2015), metric invariance (i.e., equal factor loadings) was examined by using nested model comparisons. A Chi-square test was used to examine whether adding constraints on the model led to a decrease in model fit, and metric invariance was established. However, we did not find support for scalar (aka strong) factorial invariance (i.e., equivalence of intercepts). Thus,

partial measurement invariance between mothers and fathers was established, and the factor was considered appropriate for use as a predictor variable (Geiser, 2013). The factor scores from the equality-constrained Quality of Parenting factor were extracted, with higher scores reflecting more positive parenting. An ANOVA was then used to compare the Quality of Parenting latent-factor scores between family types. Parent-child conflict was analyzed separately using a MANOVA to compare across family types as the conflict variables did not load onto the Quality of Parenting factor. The dependent variables were frequency of parent-child conflict and resolution of parent-child conflict. Subsequently, ANOVAs were run on parent and teacher total scores on the SDQ to compare child adjustment between family types, and Chi-square tests were used to examine whether the proportion of children scoring above the cut-off differed between groups.

Finally, multilevel modelling (MLM) was used to examine predictors of child adjustment across the different family types. MLM allows for inclusion of data from mothers and fathers on the same outcome variable, so it is valuable for examining data collected from dyads who are not independent of each other, whilst also enabling tests to address the research question of between-family differences. Informed by the Family Systems approach for this study, MLM allowed for an interpretation of the effects of family process variables on the outcome variable, children's SDQ scores, taking into account data from mothers and fathers together (i.e., family-level effects). The model had two levels; the first level, the within-family level examined the variance in the outcome measure accounted for by variance between the fathers' and mothers' scores within each dyad (e.g., parental wellbeing, parenting quality, parent-child relationship quality), and the second level, the between-family level, examined the variance in the outcome measure accounted for by the variance occurring between different families (e.g., family type, child gender). MLM analyses were conducted in M*plus* Version 8 and due to non-normal distributions on several of the predictor variables, a

maximum likelihood estimator with robust standard errors was used (Muthén & Muthén, 2012). A full information approach was adopted so all eligible families were analyzed (Enders, 2001). Model fit was assessed using the criteria outlined by Brown (2015) of a RMSEA of < .08, a CFI of > .90, and a TLI of > .90. In order to estimate the proportion of variance in SDQ scores explained by the predictor variables, Snijders and Bosker's (1999) measure was used, which is considered to be comparable to R^2. The present study has a comparable sample size to other studies using CFA and MLM (e.g., McConnachie et al., 2020).

Parent Mental Health, Social Support, Relationship Quality and Coparenting by Family Type

Parental Mental Health

As shown in Table 2, the mental health variables assessing depression, anxiety and parenting stress were entered into a MANOVA with family type (primary caregiver father, primary caregiver mother and dual-earner mother) as the between-subjects factor. Pillai's Trace was not significant, $F(6, 238) = 1.14$, $p = .34$, suggesting no significant difference between the three types of primary caregiver parent for depression, anxiety and parenting stress.

Social Support

An ANOVA with primary caregivers' scores for social support as the dependent variable found no significant difference between parents, $F(2, 120) = 1.84$, $p = .16$, indicating that the primary caregiver fathers, primary caregiver mothers and dual-earner mothers all reported similar levels of perceived social support.

Marital Satisfaction

An ANOVA including primary caregivers' scores for marital state with family type as the between-subjects variable revealed no difference in marital satisfaction between primary

caregiving parents, $F(2, 120) = 0.10$, $p = .90$, and the mean scores for all three types of primary caregiver parent were indicative of good martial quality.

Coparenting

An ANOVA was used to compare primary caregiver fathers', primary caregiver mothers' and dual-earner mothers' total scores for coparenting, $F(2, 116) = 0.08$, $p = .92$. There was not a significant difference between groups, showing that the primary caregiver parents in different families all scored similarly on quality of coparenting within their couple.

Quality of Parenting

To examine differences in parenting quality between the different family types, an ANOVA was run comparing primary caregiver fathers', primary caregiver mothers' and dual-earner mothers' scores on the Quality of Parenting factor, $F(2, 124) = 2.51$, $p = .09$. There was no significant difference between the three groups of parents.

To further examine the quality of parent-child relationship between primary caregivers in different family types, a MANOVA was run on primary caregivers' scores on the parent-child conflict variables; Frequency of Conflict and Resolution of Conflict. Pillai's trace was not significant; $F(4, 240) = 1.03$, $p = .39$, showing that there was not a significant difference between primary caregiver fathers, primary caregiver mothers and dual-earner mothers in conflict with their child.

Child Adjustment

One-way ANOVAs were conducted on parents' and teachers' total scores on the Strengths and Difficulties Questionnaire (SDQ) to compare the emotional and behavioral adjustment of children in primary caregiver father, primary caregiver mother and dual-earner families. As shown in Table 2, total difficulties scores did not significantly differ by family type for either parents', $F(2,120) = 1.19$, $p = .31$, or teachers' reports, $F(2,95) = 0.56$, $p = .57$.

The proportion of children scoring above the SDQ cut-off for psychiatric disorder for parents' ratings in primary caregiver father, primary caregiver mother and dual-earner families, respectively, were 3%, 2% and 5%, and for teachers' ratings were, 3%, 9% and 7%, respectively. There were no significant differences in the proportion of children with scores above cut-off between children in primary caregiver father, primary caregiver mother and dual-earner families as rated by parents, $\chi^2(2) = 0.58$, $p = .75$, and teachers $\chi^2(2) = 1.18$, $p = .55$.

Predictors of Child Adjustment

Given no difference was found in SDQ scores across family types, associations between parent-rated SDQ scores and the measures of family functioning were examined. Initially, Pearson's correlation coefficients were calculated to explore associations between father- and mother-rated total SDQ scores and possible predictors of adjustment (see Table 3). The predictors included variables measuring parent psychological wellbeing, parenting, parent-child relationship quality and child gender. Then, predictors which were significantly correlated with SDQ scores and made theoretical sense, were entered into a multi-level model; total father- and mother-rated SDQ scores were regressed on to the within-couple predictors which included the Quality of Parenting factor, Parenting Stress, Parent Mental Health (the aggregate score of anxiety and depression), Frequency of Parent-Child Conflict and Resolution of Parent-Child Conflict (Level 1) and on to the between-family predictor; child gender (Level 2). The Quality of Parenting factor was permitted to covary with Parent Mental Health, Parenting Stress, and the Frequency of Conflict, and Parenting Stress was permitted to covary with Parent Mental Health and Frequency of Conflict. The model showed acceptable fit, RMSEA = 0.07, CFI = 0.97, TLI = 0.89. As illustrated in Table 4, Parenting Stress, Standardized Estimate = 0.64 [95%CI = 0.49, 0.80], was significantly positively associated with children's adjustment problems, and Frequency of Parent-Child Conflict,

Standardized Estimate = 0.13 [95% CI = 0.00, 0.26], was marginally positively associated with children's adjustment problems (p = .05). The model indicated that variables at the within-couple level explained approximately 37% of the variance in children's total difficulties scores on the SDQ. At the between-family level, child gender was not a significant predictor of total SDQ scores, explaining 3% of the variance in children's adjustment problems. Overall, this indicates that parents who reported higher levels of stress and greater parent-child conflict, irrespective of their family type or level of involvement in parenting, were more likely to have children with higher levels of adjustment difficulties.

Discussion

This study aimed to provide novel insight into the similarities and differences between primary caregiver father families, primary caregiver mother families and dual-earner families regarding parental wellbeing, parenting quality and child adjustment. Overall, no differences were found between the three family types, and variance in child adjustment was explained by parenting stress. This provides support for the hypothesis that highly involved fathers would show a comparable quality of parenting to highly involved mothers, and that family processes, such as parental psychological health, are more important for child adjustment than family type (Imrie & Golombok, 2020).

Crucially, no significant differences emerged between primary caregiver fathers, primary caregiver mothers and dual-earner mothers on the psychological wellbeing or social support measures. The lack of differences between the different primary caregivers illustrates that fathers are just as adjusted to their role as parents as mothers. In addition, comparisons of coparenting and martial satisfaction between primary caregiver fathers, primary caregiver mothers and dual-earner mothers revealed no differences. For both measures, the results reflected few marital difficulties and cooperative coparenting practices across family types. This is in line with the findings of a qualitative study of stay-at-home fathers which reported

that the men felt happy in their marriage (Zimmerman, 2000), and also quantitative research on stay-at-home fathers which found that the fathers reported moderate to high levels of marital satisfaction (Rochlen et al., 2008a). These findings indicate that, despite taking on a non-traditional role, primary caregiver fathers report relationship quality akin to couples with a primary caregiver mother.

It is noteworthy that no differences emerged in parental wellbeing and relationship satisfaction, considering the challenges these fathers may have faced in their non-traditional parenting role. Both early research on stay-at-home fathers in the US (Robertson & Verschelden, 1993) and more recent studies (Ammari & Schoenebeck, 2016; Lee & Lee, 2018; Snitker, 2018) found that fathers faced stigmatization and experienced difficulties in integrating into the 'parenting space' that has traditionally been occupied by mothers. It is likely that the fathers in the present sample faced similar issues in feeling accepted. However, their network of social support, which did not differ from that of mothers, may have played a role in the positive wellbeing reported by the primary caregiver fathers. Conceptualizing social support as a preventative buffer may offer a useful framework for understanding these families, such that social support aids parents in coping with any difficulties they may face and so can act as a preventative buffer from stressors (DeGarmo et al., 2008). Furthermore, in line with Family Systems Theory (Cox & Paley, 2003), arguably greater marital satisfaction and cooperative coparenting may have contributed to the overall wellbeing of the fathers, mirroring the correlational findings between the parental psychological health and relationship quality measures.

In terms of the quality of parenting shown by primary caregivers, there were no differences between the three types of parents. The primary caregiver fathers, like the primary caregiver mothers, demonstrated a high-quality of parenting, characterized by warmth, sensitivity and acceptance. In addition, there were no differences between families

regarding parent-child conflict. This adds further confidence to the view that parent gender is not directly related to parenting quality (Lamb, 2012) and corroborates previous research which has reported that highly involved fathers have the same opportunity for high-quality, sensitive parenting as mothers (Pruett, 2000; Russell, 1983). These findings are consistent with research on same-sex parent families that have demonstrated that gay fathers show high parenting quality comparable to that of lesbian mother families (Farr et al., 2010; Golombok et al., 2014; Golombok et al., 2018). Overall, the present findings suggest that, amongst primary caregiver parents, neither gender nor not being in paid employment influenced parenting quality. Notably, the findings are in accordance with the body of research showing that there has been a convergence in the roles of mothers and fathers, and, consequently, very similar parenting behaviors are now observed between the two (Fagan et al., 2014; Lamb, 2012). Hence, the present study challenges the assumption that women are more suited to primary caregiving than men.

The high-quality parenting demonstrated by the fathers is consistent with the results of the wider body of literature on stay-at-home fathers. Reflecting on her large qualitative study of Canadian primary caregiver fathers, Doucet (2004) commented that men who choose to take on this role are likely to be very nurturing, sensitive caregivers. In the US, stay-at-home fathers have been found to report high levels of confidence in their parenting (Rochlen et al., 2008a), and to express a high sense of satisfaction with their role as the primary caregiver (Rochlen et al., 2008b).

Another finding from this study was that the large majority of children were well-adjusted based on parent and teacher reports; few exhibited clinically relevant difficulties and the children raised by primary caregiver fathers did not differ in adjustment from children in families where mothers were the primary caregivers. This is in line with research on gay father families (Farr et al., 2010; Golombok et al., 2014; Golombok et al., 2018;

McConnachie et al., 2020). Thus, the present findings, and those from other studies of primary caregiving men, indicate that fathers in the primary caregiver role can provide a home environment that is conducive to positive psychological adjustment in children.

Consistent with previous research on primary caregiving father families, parenting stress accounted for the largest proportion of variance in SDQ scores between families (Farr et al., 2010; Golombok et al., 2014). As an explanation for this, parenting stress and child adjustment difficulties are often theorized as having a reciprocal effect on each other, and previous research has found a bidirectional association between parenting stress and child behavioral difficulties (Neece et al., 2012). Elevated levels of child behavioral difficulties can increase parenting stress, which then can lead to greater child difficulties. The findings are also in line with the idea that each member of a family dynamically influences the other members within a family unit, as outlined by Family Systems Theory (Cox & Paley, 2003). Similarly, the influence of frequency of parent-child conflict on increased child difficulties can be understood within the transactional model. As with parent mental health, parent behaviors and child adjustment are frequently conceptualized as reciprocally influential (Burke et al., 2008). Hence, parent-child conflict may not only increase child behavioral problems, but behavioral problems themselves may trigger more confrontation between caregivers and their children.

Given the paucity of research on family functioning amongst families with a primary caregiver father, the present study is important in informing our understanding of these families. Nevertheless, the study has several limitations. The modest sample size reflects the challenges faced when recruiting fathers, as identified by previous research (Mitchell et al., 2010), and also reflects that men adopting this role make up a small minority of families. That said, this modest sample size is adequate to conduct meaningful analyses (e.g., Raudenbush, 2008). In addition, the sample lacks diversity; it is mainly comprised of parents

who have attended higher education, are in a heterosexual relationship, identify their ethnicity as White, and report very few financial difficulties. An area for future research to explore would be whether similar outcomes are found in primary caregiver father families who face different challenges, such as financial difficulties, or who face multiple forms of stigma due to other aspects of their identity.

This research has important policy implications. The high quality of parenting demonstrated by the primary caregiver fathers suggests that more fathers should be encouraged to be highly involved parents. To do so, policies facilitating this, such as shared parental leave and flexible working, including more part-time employment options, need to be widely promoted by both governments and by individual organizations. It is noteworthy that during the first Covid-19 lockdown in the UK in 2020, research by the Office for National Statistics found fathers' contributions to unpaid childcare saw a 58% increase (Office for National Statistics, 2020). If homeworking continues into the longer term, this adds weight to the argument that we need to better understand the impact of primary caregiver fathers on the functioning of the whole family unit.

Despite the challenges faced by men in non-traditional parenting roles, the primary caregiver fathers in this study showed a high quality of parenting, and did not differ in parental psychological wellbeing, marital quality, social support or coparenting from primary caregiver mothers and mothers in dual-earner families. That the children were well-adjusted across the different family types strongly suggests that the gender of the primary caregiver is less important to children's adjustment than the quality of parent-child relationships and parental wellbeing. Thus, the findings of the present study show that fathers and mothers are equally competent at parenting in the primary caregiving role.

Acknowledgements

We gratefully acknowledge the families who participated in the study and Rianna Beaton who provided research assistance. This research was supported by the Economic and Social Research Council (ESRC studentship 1645921).

References

Abidin, R. R. (1995). *Parenting Stress Index, Third Edition: Professional Manual.* Odessa, FL: Psychological Assessment Resources, Inc.

Ammari, T., & Schoenebeck, S. (2016). Thanks for your interest in our Facebook group, but it's only for dads: Social Roles of Stay-at-Home Dads. *Proceedings of the 19th ACM Conference on Computer-Supported Cooperative Work & Social Computing*, 1363–1375. https://doi.org/10.1145/2818048.2819927

Brown, T. (2015). *Confirmatory factor analysis for applied research.* New York, NY: Guildford.

Burke, J. D., Pardini, D. A., & Loeber, R. (2008). Reciprocal relationships between parenting behavior and disruptive psychopathology from childhood through adolescence. *Journal of Abnormal Child Psychology*, *36*(5), 679–692. https://doi.org/10.1007/s10802-008-9219-7

Cohen, J. (1992). A power primer. *Psychological Bulletin*, *112*(1), 155–159. https://doi.org/10.1037//0033-2909.112.1.155

Connolly, S, Aldrich, M, O'Brien, M, Speight, S., & Poole, E. (2014). *Trends in fathers' work-family arrangements and working hours (2001–2011)*. Modern Fatherhood. http://www.modernfatherhood.org/wp-content/uploads/2014/01/Nuffield-PRESENTATION-FATHERS-FINAL-2.pdf

Cox, M. J., & Paley, B. (2003). Understanding Families as Systems. *Current Directions in Psychological Science*, *12*(5), 193–196. https://doi.org/10.1111/1467-8721.01259

Deater-Deckard, K. (1998). Parenting Stress and Child Adjustment: Some Old Hypotheses and New Questions. *Clinical Psychology: Science and Practice, 5*(3), 314–332.

https://doi.org/10.1111/j.1468-2850.1998.tb00152.x

DeGarmo, D. S., Patras, J., & Eap, S. (2008). Social support for divorced fathers' parenting: Testing a stress-buffering model. *Family Relations: An Interdisciplinary Journal of Applied Family Studies, 57*, 35-48. http://dx.doi.org/10.1111/j.1741-3729.2007.00481.x

Dermott, E. (2008). *Intimate Fatherhood: A Sociological Analysis*. New York, NY: Routledge.

Doucet, A. (2004). “It’s Almost Like I Have a Job, but I Don’t Get Paid”: Fathers at Home Reconfiguring Work, Care, and Masculinity. *Fathering: A Journal of Theory, Research, and Practice about Men as Fathers*, *2*(3), 277–303. https://doi.org/10.3149/fth.0203.277

Elliott, K. (2015). Caring Masculinities: Theorizing an Emerging Concept. *Men and Masculinities*, *19*(3), 240–259. https://doi.org/10.1177/1097184X15576203

Enders, C. K. (2001). A primer on maximum likelihood algorithms available for use with missing data. *Structural Equation Modeling*, *8*, 128–141. https://doi.org/10.1207/S15328007SEM0801_7

Fagan, J., Day, R., Lamb, M. E., & Cabrera, N. J. (2014). Should Researchers Conceptualize Differently the Dimensions of Parenting for Fathers and Mothers? *Journal of Family Theory & Review*, *6*(4), 390–405. https://doi.org/ 10.1111/jftr.12044

Farr, R. H., Forssell, S. L., & Patterson, C. J. (2010). Parenting and Child Development in Adoptive Families: Does Parental Sexual Orientation Matter? *Applied Developmental Science*, *14*(3), 164–178. https://doi.org/10.1080/10888691.2010.500958

Farr, R. H., & Patterson, C. J. (2013). Coparenting among lesbian, gay, and heterosexual couples: Associations with adopted children’s outcomes. *Child Development, 84*(4), 1226-40. https://doi.org/10.1111/cdev.12046

Feinberg, M. E., Brown, L. D., & Kan, M. L. (2012). A Multi-Domain Self-Report Measure of Coparenting. *Parenting*, *12*(1), 1–21. https://doi.org/10.1080/15295192.2012.638870

Field, T. (1978). Interaction behaviours of primary versus secondary caretaker. *Developmental Psychology*, *14*, 183–184.

Geiser, C. (2013). *Data Analysis with MPlus*. London: Guildford Press.

Goldberg, A. E., & Smith, J. Z. (2013). Predictors of psychological adjustment in early placed adopted children with lesbian, gay, and heterosexual parents. *Journal of Family Psychology, 27*(3), 431–442. https://doi.org/10.1037/a0032911

Golombok, S. (2015). *Modern families: parents and children in new family forms*. Cambridge, UK: Cambridge University Press.

Golombok, S., Blake, L., Slutsky, J., Raffanello, E., Roman, G. D., & Ehrhardt, A. (2018). Parenting and the Adjustment of Children Born to Gay Fathers Through Surrogacy. *Child Development*, *89*(4), 1223–1233. https://doi.org/10.1111/cdev.12728

Golombok, S., Mellish, L., Jennings, S., Casey, P., Tasker, F., & Lamb, M. E. (2014). Adoptive Gay Father Families: Parent-Child Relationships and Children's Psychological Adjustment. *Child Development*, *85*(2), 456–468. https://doi.org/10.1111/cdev.12155

Goodman, R. (2001). Psychometric properties of the Strengths and Difficulties Questionnaire. *Journal of the American Academy of Child & Adolescent Psychiatry, 40*, 1337–1345. http://dx.doi.org/10.1097/00004583-200111000-00015

Goodman, S. H., Rouse, M. H., Connell, A. M., Broth, M. R., Hall, C. M., & Heyward, D. (2011). Maternal depression and child psychopathology: A meta-analytic review. *Clinical Child and Family Psychology Review, 14*(1), 1-27. https://doi.org/10.1007/s10567-010-0080-1

Grossmann, K., Grossmann, K. E., Fremmer-Bombik, E., Kindler, H., Scheuerer-Englisch, H., & Zimmermann, P. (2002). The Uniqueness of the Child-Father Attachment Relationship: Fathers' Sensitive and Challenging Play as a Pivotal Variable in a 16-year Longitudinal Study. *Social Development*, *11*(3), 301–337. https://doi.org/10.1111/1467-9507.00202

Hwang, C. P. (1986). Behavior of Swedish Primary and Secondary Caretaking Fathers in Relation to Mother's Presence. *Developmental Psychology*, *22*(6), 749–751.

Imrie, S. & Golombok, S. (2020). Impact of New Family Forms on Parenting and Child Development. *Annual Review of Developmental Psychology*, *2*(1). https://doi.org/https://doi.org/10.1146/annurev-devpsych-070220-122704

Lamb, M. E. (2012). Mothers, Fathers, Families, and Circumstances: Factors Affecting Children's Adjustment. *Applied Developmental Science*, *16*(2), 98–111. https://doi.org/10.1080/10888691.2012.667344

Lamb, M.E., Frodi A.M., Hwang, C.P., Frodi M., Steinberg J. (1982). Effect of Gender and Caretaking Role on Parent—Infant Interaction. In R. N. Emde, & R. J. Harmon (Eds.) *The Development of Attachment and Affiliative Systems. Topics in Developmental Psychobiology*. Springer. https://doi.org/10.1007/978-1-4684-4076-8_10

Lee, J. Y., & Lee, S. J. (2018). Caring is Masculine: Stay-at-Home Fathers and Masculine Identity. *Psychology of Men & Masculinity*, *19*(1), 47–58. https://doi.org/10.1037/men0000079

Lewis, C., & Lamb, M. E. (2003). Fathers' influences on children's development: The evidence from two-parent families. *European Journal of Psychology of Education*, *18*(2), 211–228. https://doi.org/10.1007/BF03173485

Lewis, S. N., West, A. F., Stein, A., Malmberg, L.-E., Bethell, K., Barnes, J., … Families, Children and Child Care (FCCC) project team. (2009). A comparison of father-infant interaction between primary and non-primary care giving fathers. *Child: Care, Health and Development*, *35*(2), 199–207. https://doi.org/10.1111/j.1365-2214.2008.00913.x

Mattila, H. (2020). The social construction of stay-at-home fathering across everyday spaces. *Qualitative Psychology*, *7*(2), 185–205. https://doi.org/10.1037/qup0000175

McConnachie, A. L., Ayed, N., Foley, S., Lamb, M. E., Jadva, V., Tasker, F., & Golombok, S. (2020). Adoptive Gay Father Families: A Longitudinal Study of Children's Adjustment at Early Adolescence. *Child Development*, 1–19. https://doi.org/10.1111/cdev.13442

Minuchin, P. (1985). Families and individual development: Provocations from the field of family therapy. Child Development, 56(2), 289–302.

Mitchell, S. J., See, H. M., H Tarkow, A. K., Cabrera, N., McFadden, K. E., & Shannon, J. D. (2010). *Conducting Studies with Fathers: Challenges and Opportunities, 11*(4) 239-244. https://doi.org/10.1080/10888690701762159

Murray, L., & Carothers, A. D. (1990). The validation of the Edinburgh Post-natal Depression Scale on a community sample. *British Journal of Psychiatry*, *157*(AUG.), 288–290. https://doi.org/10.1192/bjp.157.2.288

Muthén, B., & Muthén, L. (2012). *MPlus: Statistical analysis with latent variables*. Los Angeles, CA: Author.

Neece, C. L., Green, S. A., & Baker, B. L. (2012). Parenting Stress and Child Behavior Problems: A Transactional Relationship Across Time. *American Journal on Intellectual and Developmental Disabilities*, *117*(1), 48–66. https://doi.org/10.1352/1944-7558-

117.1.48

Palkovitz, R. (2019). Expanding Our Focus From Father Involvement to Father–Child Relationship Quality. *Journal of Family Theory & Review*, *11*, 576–591. https://doi.org/10.1111/jftr.12352

Office for National Statistics (2019). *Families and the labour market, UK: 2019.* https://www.ons.gov.uk/employmentandlabourmarket/peopleinwork/employmentandemployeetypes/articles/familiesandthelabourmarketengland/2019

Office for National Statistics (2020). *Coronavirus and how people spent their time under lockdown: 28 March to 26 April 2020.* https://www.ons.gov.uk/economy/nationalaccounts/satelliteaccounts/bulletins/coronavirusandhowpeoplespenttheirtimeunderrestrictions/28marchto26april2020

Pruett, K. D. (2000). *Fatherneed: why father care is as essential as mother care for your child*. Harmony.

Quinton, D., & Rutter, M. (1988). *Parenting breakdown: the making and breaking of inter-generational links*. Avebury.

Raudenbush, S. W. (2008). Many small groups. In J. dr Leeuw, & E. Meijer, (Eds.), *Handbook of multilevel analysis* (p. 207-236). New York: Springer.

Robertson, J. M., & Verschelden, C. (1993). Voluntary Male Homemakers and Female Providers: Reported Experiences and Perceived Social Reactions. *The Journal of Men's Studies*, *1*(4), 383–402. https://doi.org/10.3149/jms.0104.383

Rochlen, A. B., McKelley, R. A., Suizzo, M.-A., & Scaringi, V. (2008a). Predictors of relationship satisfaction, psychological well-being, and life satisfaction among stay-at-home fathers. *Psychology of Men & Masculinity*, *9*(1), 17–28.

https://doi.org/10.1037/1524-9220.9.1.17

Rochlen, A. B., McKelley, R. A., & Whittaker, T. A. (2010). Stay-at-home fathers' reasons for entering the role and stigma experiences: A preliminary report. *Psychology of Men & Masculinity*, *11*(4), 279–285. https://doi.org/10.1037/a0017774

Rochlen, A. B., Suizzo, M.-A., McKelley, R. A., & Scaringi, V. (2008b). "I'm just providing for my family": A qualitative study of stay-at-home fathers. *Psychology of Men & Masculinity*, *9*(4), 193–206. https://doi.org/10.1037/a0012510

Rohner, R. (2001). *Handbook for the study of parental acceptance andrejection.* Storrs, CT: Rohner Research.

Russell, G. (1983). *The changing role of fathers?* St Lucia, Queensland: University of Queensland Press.

Rust, J., Bennun, I., Crowe, M., & Golombok, S. (1990). The GRIMS. A psychometric instrument for the assessment of marital discord. *Journal of Family Therapy*, *12*(1), 45–57. https://doi.org/10.1046/j..1990.00369.x

Rust, J., Bennun, I., Crowe, M., Golombok, S., Area, E., Authority, H., … Hospitals, M. (1986). The Golombok Rust Inventory of Marital State (GRIMS). *Sexual and Marital Therapy*, *1*(1), 55–60. https://doi.org/10.1080/02674658608407680

Schoppe-Sullivan, S. J., & Fagan, J. (2020). The Evolution of Fathering Research in the 21st Century: Persistent Challenges, New Directions. *Journal of Marriage and Family*, *82*(1), 175–197. https://doi.org/10.1111/jomf.12645

Snijders, T., & Bosker, R. (1999). *Multilevel Analysis: An Introduction to Basic and Advanced Multilevel Modeling*. London: Sage Publications.

Snitker, A. (2018). Not Mr. Mom: Navigating Discourses for Stay-at-Home Fathers. The

Journal of Men's Studies, 26(2), 203–221. https://doi.org/10.1177/1060826518758628

Solomon, C. R. (2014). "I feel like a rock star": Fatherhood for stay-at-home fathers. *Fathering*, *12*(1), 52–70. https://doi.org/10.3149/fth.1201.52

Spielberger, C. D., Gorsuch, R. L., Lushene, R., Vagg, P. R., & Jacobs, G. A. (1983). *Manual for the state-Trait Anxiety Inventory*. Palo Alto, CA: Consulting Psychologists Press.

Stone, L. L., Otten, R., Engels, R. C. M. E., Vermulst, A. A., & Janssens, J. M. A. M. (2010). Psychometric properties of the parent and teacher versions of the strengths and difficulties questionnaire for 4- to 12-year-olds: a review. *Clinical Child and Family Psychology Review*, *13*(3), 254–274. https://doi.org/10.1007/s10567-010-0071-2

Thorpe, K. (1993). A study of the use of the Edinburgh postnatal depression scale with parent groups outside the postpartum period. *Journal of Reproductive and Infant Psychology*, *11*(2), 119–125. https://doi.org/10.1080/02646839308403204

Van Rijn-Van Gelderen, L., Bos, H. W. M., Jorgensen, T. D., Ellis-Davies, K., Winstanley, A., Golombok, S., Rubio, B., Gross, M., Vecho, O., & Lamb, M. E. (2018). Wellbeing of gay fathers with children born through surrogacy: a comparison with lesbian-mother families and heterosexual IVF parent families. *Human Reproduction*, *33*(1), 101–108. https://doi.org/10.1093/humrep/dex339

Zimet, G. D., Dahlem, N. W., Zimet, S. G., & Farley, G. K. (1988). The Multidimensional Scale of Perceived Social Support. *Journal of Personality Assessment*, *52*(1), 30–41. https://doi.org/10.1207/s15327752jpa5201_2

Zimmerman, T. S. (2000). Marital Equality and Satisfaction in Stay-At-Home Mother and Stay-At-Home Father Families. *Contemporary Family Therapy*, *22*, 337–354. https://doi.org/10.1023/A:1007816725358

Table 1. *Demographic Information by Family Type*

	Primary Caregiver Father (PCF)		Primary Caregiver Mother (PCM)		Dual-Earner (DE)		*F*	*p*	PCF vs. PCM *p*	PCF vs. DE *p*
	M	*SD*	*M*	*SD*	*M*	*SD*				
Age of child	4.87	1.22	4.47	1.06	4.71	1.07	1.35	.26	.11	.53
Age of mother	38.43	4.16	36.20	3.44	37.68	3.43	4.11	.02	.01	.36
Age of father	41.95	6.21	37.95	4.83	39.33	3.75	6.96	.001	.001	.02
	n	%	*n*	%	*n*	%	χ^2		*p*	
Child gender							2.04		.36	
Female	28	68	24	53	24	58				
Male	13	32	21	47	17	42				
Siblings										
0	7	17	7	16	8	20	3.98		.41	
1	31	76	28	62	26	63				
2+	3	7	10	22	7	17				
Financial Difficulties										
No difficulties	35	85	35	78	37	90	Fisher's exact		.94	
Some difficulties	4	10	5	11	4	10				
Mother ethnicity										
White	38	93	39	87	35	85			.29	
Other ethnic group	1	2	4	9	5	12				
Father ethnicity										
White	37	90	42	93	36	88			.13	
Other ethnic group	3	7	0		4	10				
Mother qualification										
Below undergraduate	4	10	6	13	3	7	4.89		.29	
Undergraduate degree	12	29	21	47	14	34				
Postgraduate degree	22	54	16	36	23	56				
Father qualification							6.71		.15	
Below undergraduate	12	29	7	16	3	7				
Undergraduate degree	12	29	15	33	15	37				
Postgraduate degree	16	39	17	38	21	51				

Table 2. *Descriptive Statistics for Main Study Variables by Family Type*

	Primary caregiver father (PCF)		Primary caregiver mother (PCM)		Dual-earner mother (DEM)		*F (2,120)*	*p*	ηp^2	PCF vs. PCM	PCF vs. DEM
										p	*p*
	M	*SD*	*M*	*SD*	*M*	*SD*					
Depression	6.13	3.51	6.88	4.51	6.45	4.04	0.37	.69	.01	1.00	1.00
Anxiety	41.30	9.24	39.14	9.00	39.73	8.80	0.63	.53	.01	.83	1.00
Parenting Stress	70.70	14.15	72.07	16.48	71.93	14.52	0.10	.90	.00	1.00	1.00
Social Support	5.56	1.08	5.88	1.16	6.04	1.14	1.84	.16	.03	.63	.19
Marital State	21.48	10.27	22.43	10.80	21.63	9.93	0.10	.90	.00	1.00	1.00
Coparenting	4.98	0.65	4.98	0.81	5.03	0.64	0.08	.92	.00	1.00	1.00
Quality of Parenting	0.24	0.65	0.03	0.55	-0.03	0.56	2.51	.09	.04	.27	.11
Conflict Frequency	3.12	1.35	3.60	1.27	3.29	1.38	1.43	.24	.02	.30	1.00
Conflict Resolution	0.23	0.48	0.16	0.37	0.18	0.39	0.27	.76	.01	1.00	1.00
Parent SDQ	7.33	3.78	8.65	4.05	8.06	3.85	1.19	.31	.02	.38	1.00
							F(2,95)				
Teacher SDQ	5.57	5.34	6.82	5.09	5.94	4.12	0.56	.57	.01	.94	1.00

Note. SDQ = Strengths and Difficulties Questionnaire total difficulties score.

Table 3. *Pearson's Correlations between Main Study Variables, with Mothers above and Fathers below the Diagonal*

		1.	2.	3.	4.	5.	6.	7.	8.	9.	10.	11.	12.	13.
1.	SDQ Total	-	-.11	-.07	-.13	.16	-.01	.25**	.27**	.26**	.49***	-.00	.01	-.01
2.	Warmth	-.33***	-	.26**	.56***	.34***	.33***	-.01	-.09	-.13	-.30**	.18	-.28**	.34***
3.	Involvement	-.23*	.51***	-	.38***	.25**	0.12	-.03	.08	.05	-.15	-.01	-0.03	.04
4.	Quality of Interaction	-.21*	.51***	.40***	-	.25**	.32***	-.09	.04	-.22*	-.46***	.16	-.08	.07
5.	Sensitive Responding	-.03	.42***	.39***	.24**	-	.15	.10	.08	.01	.08	.21*	-.18*	.15
6.	Acceptance / Rejection	-.23*	.35***	.34***	.20*	.14	-	-.15	-.03	-.27**	-.43***	.13	-.34***	.41***
7.	Frequency of Conflict	.25**	-.21*	-.11	-.21*	-.21*	-.26**	-	.17	.13	.18	.08	.66	.10
8.	Resolution of Conflict	.12	-.30**	-.38***	-.21*	-.16	-.22*	-.07	-	.07	.19*	.09	.04	-.05
9.	Parent Mental Health	.09	-.07	-.10	-.12	.13	-.31**	.11	-.01	-	.54***	-.37***	.30**	-.24*
10.	Parenting Stress	.56***	-.48***	-.46***	-.36***	-.09	-.44***	.30**	.12	.45***	-	-.28**	.36***	-.33***
11.	Support	-.20*	.22*	.26**	.34***	-.00	.33***	-.20*	-.10	-.42***	-.42***	-	-.62***	.48***
12.	Marital State	.11	-.26**	-.34***	-.19*	-.11	-.46***	.07	.15	.34***	.41***	-.54***	-	-.54***
13.	Coparenting	-.25*	.34***	.31**	.33***	.01	.45***	-.09	-.18*	-.29**	-.44***	.62***	-.80***	-

Note. *$p < .05$, **$p < .01$, ***$p < .001$

Table 4. *Multi-Level Model Parameter Estimates*

	Strengths and Difficulties Questionnaire Total Difficulties		
	Est.	S.E.	Std. Est.
Within Couple			
Quality of Parenting Factor	0.43	.45	.08
Parenting Stress	0.15	.02	.64***
Parent Mental Health	-0.03	.02	-.12
Frequency of Parent-Child Conflict	0.37	.19	.13
Resolution of Parent-Child Conflict	1.12	.68	.12
Between Couple			
Child Gender	0.90	.61	.18

Note. *$p < .05$, **$p < .01$, ***$p < .001$